

**REMARKS**

Applicant thanks the Examiner for total consideration given the present application. Claims 1-5 were pending in this application prior to this Reply. Claims 1 and 4 have been amended, Claims 2-3 have been cancelled, and Claims 6-8 have been added. Therefore, Claims 1, 4-8 are now currently pending. Claims 1 and 4 are independent. Applicants respectfully request reconsideration of the rejected claims in light of the amendments and remarks presented herein, and earnestly seek timely allowance of all pending claims.

**Claim Rejections Under 35 USC § 102/35 USC § 103**

The Examiner rejects Claim 1 under 35 U.S.C. § 102(b) as being anticipated by Great Britain Patent Application No. 2,000,687 submitted by Hanke et al. (hereinafter “Hanke”). Alternatively, the Examiner rejects Claims 1 under 35 U.S.C. § 103(a) as being obvious in view of Hanke. In light of above amendments, Applicant submits the Examiner has failed to establish *prima facie* anticipation or obviousness, and respectfully traverses the rejection.

In order to establish *prima facie* anticipation under 35 U.S.C. § 102, the cited reference must teach or inherently include each and every element of the claims. See *M.P.E.P.* § 2131; *M.P.E.P.* § 706.02. *Prima facie* obviousness also requires the prior art teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 1 recites, *inter alia*, “said nozzle opening has a shape defined by not less than two line segments disposed in parallel.” The Examiner stated that Fig. 14 of Hanke teaches a nozzle opening having at least two parallel line segments. However, Fig. 14 teaches a nozzle opening having only a single line segment. There is nothing in Hanke that teaches or suggests a nozzle opening having not less than two parallel line segments. Therefore, Hanke fails to teach all of the features in Claim 1, and accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of this claim.

**Claim Rejections Under 35 USC §103**

The Examiner rejects Claim 4-5 under 35 U.S.C. § 103(a) as being unpatentable over Hanke in view of U.S. Patent No. 4,308,138 issued to Woltman (hereinafter “Woltman”). Applicant submits that the Examiner has improperly applied combined the teachings of Hanke and Woltman contrary to a finding of obviousness, as well as having failed to establish *prima facie* obviousness as the prior art fails to teach or suggest all the claim limitations.

In order to support an obviousness rejection, there must be “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). The Examiner states that the combination of the air outlet of Woltman (20, 37, 38) with the multiple line segment nozzle opening of Hanke (Fig. 15) would “facilitate a full complete mixing of water and air.” However, the exact opposite result would be achieved. Increasing the size of the nozzle opening of Woltman (by increasing the number of line segment openings) would actually lessen the ability of the air outlets to facilitate the complete mixing of air and water, as the water flow would be increased without increasing the amount of air introduced into the water. Accordingly, the Examiner’s rationale fails to provide a rational underpinning to support an obviousness rejection.

Assuming that, *arguendo*, some rationale exists for combining the teachings of Hanke and Woltman, the combined teachings would fail to support a finding of *prima facie* obviousness. Claim 4 recites, *inter alia*, “said air supply has an air outlet closely facing each said line segment constituting said nozzle opening” (emphasis added). Combining the air outlet of Woltman (20, 37, 38) with the multiple line segment nozzle opening of Hanke (Fig. 15) would not result in having an air outlet that closely faces each of the line segments of the nozzle opening. As Hanke and Woltman fail to teach or suggest every element of claim 4, a *prima facie* finding of obviousness cannot be maintained. Applicant respectfully requests the Examiner to withdraw the rejection of this claim.

With regard to dependent Claim 5, Applicant submits that Claim 5 depends directly from independent Claim 4 which is allowable for the reasons set forth above, and therefore Claim 5 is allowable based on its dependence from Claim 4. Reconsideration and allowance thereof is respectfully requested.

**CONCLUSION**

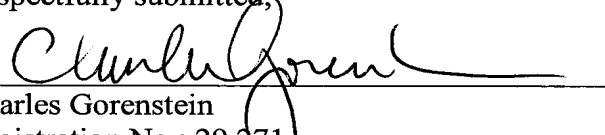
In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Charles Gorenstein, Reg. No. 29,271 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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